WO97/33921 discloses, at page 69, six (6) examples that include a tackifying resin. WO97/33921 also discloses three (3) tackifying resins used in these examples; they are Eastotac™ H-100 from Eastman Chemical Co., ECR-177 and Escorez™ 1310 from Exxon Chemical Co. Applicants herewith submit as Exhibit A copies of the data sheets for the tackifying resin Eastotac™ H-100 from Eastman Chemical Co., and the tackifying resins ECR-177 and Escorez™ 1310 from Exxon Chemical Co. As indicated by the data sheets, Eastotac™ H-100 has an onset glass transition temperature (Tg) of about 30.9°C and a softening point of 100°C. ECR-177, also known as Escorez 5400 (see page 61 of WO97/33921), has a glass transition temperature (Tg) of 55°C and a softening point of 103°C. Escorez™ 1310 has a glass transition temperature (Tg) of 45°C and a softening point of 93°C. Thus, WO97/33921 discloses tackifying resins having a glass transition temperature of 30.9°C to 55°C and a softening point of 93°C to 103°C.

Independent claims 1, 20, 22, and 28 are directed to a hot melt adhesive composition that include at least one substantially aliphatic tackifying resin having a glass transition temperature of greater than 65°C. Independent claim 30 is directed to a hot melt adhesive composition that includes at least one substantially aliphatic tackifying resin having a softening point of greater than 140°C.

Applicants submit that all the claimed elements are not present in WO97/33921; therefore, a 102 rejection is improper.

Moreover, WO97/33921 does not teach or suggest a hot melt adhesive composition that includes at least one substantially aliphatic tackifying resin having a glass transition temperature of greater than 65°C. WO97/33921 also does not teach or suggest a hot melt adhesive composition that includes at least one substantially aliphatic

tackifying resin having a softening point of greater than 140°C. WO97/33921, therefore, fails to teach at least one required element in the claimed invention. Further, the Office Action fails to provide requisite motivation to get to the present invention from WO97/33921; thus, a *prima facie* case of obviousness has not been established. Applicants respectfully request that the rejection of claims 1-30 under 35 U.S.C. 102 (e)/103 (a) over WO97/33921 be withdrawn.

In view of all the forgoing, Applicants submit that claims pending in the application are in condition for allowance and action in accordance therewith is respectfully requested. In the event that claims are not allowed, Applicants specifically request a personal or telephonic interview if doing so would facilitate the prosecution of the application to allowance.

Respectfully submitted,

Date : 02/24/03

Bin Su, Reg. No. 51,309

H.B. FULLER COMPANY
Patent Department
1200 Willow Lake Blvd.
P.O. Box 64683
St. Paul, MN 55164-0683
Tel: (651) 236-5502
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Exhibit A

EASTMAN

Fax

To:	Steve Albrecht	**From:**	Bill Butler
Fax:	651-236-5020	**Pages:**	1
Phone:	651-236-5293	**Date:**	12/17/2002
Re:	Tg of Eastotac H-100	**CC:**	John Carroll

☐ Urgent ☑ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

Steve, attached is glass transition temperature data for Eastotac H-100 as measured by DSC. This data is based on one lot of each grade.

Tg, °C	H-100 E	H-100 R	H-100 L	H-100 W	Average
Onset	33.8	27.3	32.6	29.9	30.9
Middle	43.9	37.6	44.0	40.8	41.6
End	54.1	47.9	55.4	51.7	52.3

If you have any questions, please let me know.

William A. Butler; TED B-150
EASTMAN CHEMICAL COMPANY
Principal Chemical Engineer
Adhesives and Polymers Technology - Applications
Voice: (423) 229-8159 Fax: (423) 229-3217
wabutler@eastman.com

EASTMAN

EASTOTAC Resin H-100E
Product Data Sheet

Property[a]	Test[b] Method	Typical Value, Units[c]
Ring and Ball Softening Point		100°C
Color, Gardner[d]		
Molten		8
in 50% Toluene	D 6166	5
Yellowness Index[e] in 50% Toluene	E 313	NA
Density		1.04 g/mL
Viscosity, Brookfield @ 190°C		200 cP

[a] *Unless noted otherwise, all tests are run at 23°C (73°F) and 50% relative humidity.*

[b] *Unless noted otherwise, the test method is ASTM.*

[c] *Units are in SI or US customary units.*

[d] *Calculated value based on solution measurement*

[e] *1 cm cell*

Comments

Properties reported here are typical of average lots. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.

30-Nov-2001 7:49:09 AM

EASTMAN

EASTOTAC Resin H-100R
Product Data Sheet

Property[a]	Test[b] Method	Typical Value, Units[c]
Ring and Ball Softening Point		100°C
Color, Gardner		
Molten		4
In 50% Toluene	D 6166	1.5
Yellowness Index[e] in 50% Toluene	E 313	11
Density		1.04 g/mL
Viscosity, Brookfield @ 190°C		200 cP

[a] *Unless noted otherwise, all tests are run at 23°C (73°F) and 50% relative humidity.*

[b] *Unless noted otherwise, the test method is ASTM.*

[c] *Units are in SI or US customary units.*

[d] *Calculated value based on solution measurement*

[e] *1 cm cell*

Comments

Properties reported here are typical of average lots. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.

30-Nov-2001 7:47:30 AM

EASTMAN

EASTOTAC Resin H-100L
Product Data Sheet

Property[a]	Test[b] Method	Typical Value, Units[c]
Ring and Ball Softening Point		100°C
Color, Gardner[d]		
Molten		2
in 50% Toluene		<1
Yellowness Index[e] in 50% Toluene	E 313	9
Density		1.04 g/mL
Viscosity, Brookfield @ 190°C		200 cP

[a] *Unless noted otherwise, all tests are run at 23°C (73°F) and 50% relative humidity.*

[b] *Unless noted otherwise, the test method is ASTM.*

[c] *Units are in SI or US customary units.*

[d] *Calculated value based on solution measurement*

[e] *2 cm cell*

Comments

Properties reported here are typical of average lots. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.

30-Nov-2001 7:52:09 AM

EASTMAN

EASTOTAC Resin H-100W
Product Data Sheet

Property[a]	Test[b] Method	Typical Value, Units[c]
Ring and Ball Softening Point		100°C
Color, Gardner[d]		
Molten		<1
in 50% Toluene	D 6166	<1
Yellowness Index[e] in 50% Toluene	E 313	4
Density		1.04 g/mL
Viscosity, Brookfield @ 190°C		200 cP

[a] *Unless noted otherwise, all tests are run at 23°C (73°F) and 50% relative humidity.*

[b] *Unless noted otherwise, the test method is ASTM.*

[c] *Units are in SI or US customary units.*

[d] *Calculated value based on solution measurement*

[e] *2 cm cell*

Comments

Properties reported here are typical of average lots. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.

30-Nov-2001 7:54:55 AM

ExxonMobil Chemical

ESCOREZ™

Tackifying Resins

Escorez 1310 LC

Petroleum Hydrocarbon Resin
CAS # 68478-07-9

Description

ESCOREZ 1310 LC is a light colored, premium, aliphatic hydrocarbon resin with a narrow molecular weight distribution. It is designed to tackify a variety of adhesive polymers including EVA, APP, APAO, SIS block copolymers, natural rubber, synthetic polyisoprene, polyisobutylene and butyl rubber.

Product Specifications

		ExxonMobil Test Method[2]
Softening Point, R&B, °C	91 to 97	ETM 22-24
Gardner Color[1]	4 max.	ETM 22-13
Appearance	Clear, Free of Foreign Matter	ETM 22-46

ESCOREZ 1310 LC contains an oxidation inhibitor for protection during storage.

1. Solution color as determined by measurement of a 50% (by weight) product in Toluene mixture.
2. ExxonMobil Test Methods, some of which were developed from ASTM test methods, are available upon request.

Product specifications were developed pursuant to ExxonMobil testing and sampling procedures, and those procedures are available upon request. Specifications and procedures are subject to change without notice unless otherwise agreed in writing.

FDA and TSCA Regulatory Status

- ESCOREZ 1310 LC is manufactured in compliance with the following FDA regulations as they apply to the use of petroleum hydrocarbon resins in specific food packaging applications.
  - 21.CFR: 175.105 Adhesives
    - 175.125 Pressure Sensitive Adhesives
    - 175.300 Resinous and Polymeric Coatings
    - 175.320 Resinous and Polymeric Coating for Polyolefin Films
    - 176.170* Components of Paper and Paperboard in Contact with Aqueous and Fatty Food
    - 176.180* Components of Paper and Paperboard in Contact with Dry Food
    - 177.1210 Closures with Sealing Gaskets for Food Containers
    - 177.2600 Rubber Articles
    - 178.3800 Preservatives for Wood
    - * Subject to limitations
- It is the responsibility of the user to ensure that the composition containing our product meets the limitations of relevant regulations.

ESCOREZ 1310 LC is included on the TSCA Inventory under CAS #68478-07-9.

ESCOREZ 1310 LC is a polymer and therefore not listed in EINECS. The resin is made from starting materials listed in EINECS which is a mandatory requirement.

AMERICAS - December, 2001

Escorez 1310 LC

Petroleum Hydrocarb n Resin

Typical Properties are not product specifications, but are provided to aid formulators in the selection of products for evaluation. These data represent an approximation of the value one would expect if the property were tested in our laboratories.

Typical Properties

		ExxonMobil Test Method[2]
Softening Point, R&B, °C	93	ETM 22-24
Gardner Color[1]		
Initial	3	ETM 22-13
Aged for 16 hours @ 300°F	11	ETM 22-15
Molten Gardner Color	5	ETM 22-12
Melt Viscosity (Brookfield) @ 140°C, cps	2800	ETM 22-31
Molecular Weight		ETM 300-83
$\overline{M}w$	1350	
$\overline{M}n$	750	
$\overline{M}z$	2400	
Tg, °C	45	ETM 300-90
Specific Gravity, 20/20°C (IPOH)	0.97	ETM 22-28
EVA/Resin/Wax Cloud Point, °C	97	ETM 22-10
Chloride Content, ppm	400	BRCP 1202
Ash Content, wt. %	< 0.1	ETM 22-05
Acid Number, mg KOH/g	< 1	ETM 22-49

1. Solution color as determined by measurement of a 50% (by weight) product in Toluene mixture.
2. ExxonMobil Test Methods, some of which were developed from ASTM test methods, are available upon request.

Handling Precautions

- Static electrical charges may accumulate during handling, especially in conditions of low relative humidity. See NFPA Recommended Practice #77.
- ESCOREZ 1310 LC dust is flammable in air. Do not pulverize or grind unless precautions are taken to avoid flash fire of resulting dust.
- Resin with a softening point below 97°C may remass during hot weather or prolonged storage.

For additional safety information, consult the appropriate Material Safety Data Sheet.

AMERICAS - December, 2001

ExxonMobil Chemical

ESCOREZ™

Tackifying Resins

Escorez 5400

Petroleum Hydrocarbon Resin
CAS # 68132-00-3

Description

ESCOREZ 5400 Resin is a very light color cycloaliphatic hydrocarbon resin. It is designed to tackify a variety of adhesive polymers including EVA, SIS and SEBS block copolymers, APP and APAO.

Product Specifications

Grades	5400	5415	ExxonMobil Test Method[2]
Softening Point, R&B, °C	100 to 106	115 to 121	ETM 22-24
Color			
YI, Initial Color[1]	7 max.	7 max.	ETM 22-13
YI, Aged 5 hours at 175°C[1]	61 max.	61 max.	ETM 22-14
Appearance	Clear, Free of Foreign Matter		ETM 22-46

1. Solution color as determined by measurement of a 50% (by weight) product in Toluene mixture.
2. ExxonMobil Test Methods, some of which were developed from ASTM test methods, are available upon request.

Product specifications were developed pursuant to ExxonMobil testing and sampling procedures, and these procedures are available upon request. Specifications and procedures are subject to change without notice unless otherwise agreed in writing.

FDA and TSCA Regulatory Status

- ESCOREZ 5400 Resin is manufactured in compliance with the following FDA regulations as they apply to the use of petroleum hydrocarbon resins in specific food packaging applications.

21.CFR:	175.105	Adhesives
	175.125	Pressure-sensitive Adhesive
	175.300*	Resinous and Polymeric Coatings
	(b)(3)(xxxi)	Component of can-end Cement fromulations
	175.320*	Resinous and Polymeric Coatings for Polyolefin Films
	176.170*	Components of Paper and Paperboard in Contact with Aqueous and Fatty Foods
	176.180	Components of Paper and Paperboard in Contact with Dry Food
	177.1210*	Closures with Sealing Gaskets for Food Containers
	177.2600*	Rubber Articles

*Subject to limitations

- It is the responsibility of the user to ensure that the composition containing our product complies with relevant regulations.

ESCOREZ 5400 Resin is included on the TSCA Inventories under CAS #68132-00-3.

ESCOREZ 5400 Resin is a polymer and therefore is not listed in EINECS. The resin is made from starting materials listed in EINECS which is a mandatory requirement.

AMERICAS - March, 2002

Escorez 5400

Petroleum Hydrocarbon Resin

Typical Properties are not product specifications, but are provided to aid formulators in the selection of products for evaluation. These data represent an approximation of the value one would expect if the property were tested in our laboratories.

Typical Properties

Grades	5400	5415	ExxonMobil Test Method[2]
Softening Point, R&B, °C	103	118	ETM 22-24
Color			
YI, Initial Color[1]	2	2	ETM 22-13
YI, Aged 5 hours at 175°C[1]	3	7	ETM 22-14
Molten Gardner Color	1	1	ETM 22-12
Melt Viscosity (Brookfield)			ETM 22-31
Test Temperature, °C	140	160	
Cps	3400	2500	
Molecular Weight			ETM 300-83
$\overline{M}w$	440	430	
$\overline{M}n$	210	250	
$\overline{M}z$	1000	900	
Tg, °C	55	70	ETM 300-90
Specific Gravity, 20/20°C (IPOH)	1.1	1.1	ETM 22-28
Ash Content, wt. %	<0.1	<0.1	ETM 22-05
Acid Number, mg KOH/g	<1	<1	ETM 22-49

1. Solution color as determined by measurement of a 50% (by weight) product in Toluene mixture.
2. ExxonMobil Test Methods, some of which were developed from ASTM test methods, are available upon request.

Handling Precautions

- Static electrical charges may accumulate during handling, especially in conditions of low relative humidity. See NFPA Recommended Practice #77.
- ESCOREZ 5400 Series dust is flammable in air. Do not pulverize or grind unless precautions are taken to avoid flash fire of resulting dust.

For additional safety information, consult the appropriate Material Safety Data Sheet.

AMERICAS - March, 2002